

## **EXTENDED RANGE HALL EFFECT DISPLACEMENT SENSOR**

### **ABSTRACT OF THE DISCLOSURE**

A displacement sensor utilizes a Hall effect sensor and a magnet, but has an extended range compared to conventional Hall effect displacement sensors. Relative movement between the sensor and the magnet is defined such that the path of movement is not parallel to an axis between the north and south poles of the magnet. Thus, the total path of movement is greater than in the prior art. One particularly preferred application for this sensor is in a disc brake, and as part of an adjustment mechanism for adjusting the position of the disc brake pistons. The displacement sensor is relatively small, and thus can be accommodated in the crowded environment of the disc brake adjustment mechanism. On the other hand, with the inventive large range displacement sensor, the simple and compact sensor can provide adequate measurement of the displacement of the piston.